SAFETY DATA SHEET

Revision Date: 19-Feb-2024 **Version 1**

1. IDENTIFICATION

Product identifier
Product name Foxfire HD Rust Converter

Recommended use Conversion of rust.
Uses advised against Any use not mentioned among the identified uses.

Details of the supplier of the safety data sheet
Foxfire Enterprises, Inc.
18440 3rd Street
San Antonio, Texas 78266
(254) 829-1943

Emergency telephone number
Emergency telephone **Foxfire** (254) 829-1943
CHEMTREC (800) 424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canadian Workplace Hazardous Material Information System (WHMIS)

Serious Eye Damager/Irritation	Category 2A – (H319)
Specific target organ toxicity (Repeated Exposure)	Category 2 – (H373)

Label Elements

Signal word
WARNING

Hazard statements
Causes serious eye irritation
May cause damage to organ through prolonged or repeated exposure

Precautionary Statements
Precautionary Statements - Prevention
Do not breathe dust/fume/gas/mist/ vapors/spray.
Wash hands and affected area thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
Get medical advice/attention if you feel unwell

Skin
If skin irritation occurs: Get medical advice/attention

Eyes
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention

Inhalation
None

Ingestion
None

Fire
None

Spill
None

Precautionary Statements - Storage
None

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Health: Causes mild skin irritation.
Physical: Not Applicable.

Other Information
None

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture. Health hazard information is based on its ingredients

Chemical Name	CAS No	Weight - %
Glycol ether DE acetate	112-15-2	*
Gallic acid	149-91-7	*
Ethylene glycol	107-21-1	*

*** The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.**

4. FIRST AID MEASURES

Description of first aid measures

General Advice Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapors/spray. When symptoms persist or in all cases of doubt, seek medical advice.

Inhalation IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately if symptoms occur.

Skin contact Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Seek immediate medical attention/advice.

Ingestion Clean mouth with water and afterwards drink plenty of water. Do not induce vomiting without medical advice.

Protection of First-aiders Use personal protective equipment. Avoid contact with skin, eyes, and clothing. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Main symptoms Itching, redness
Eye damage/irritation

Indication of immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment: Use CO2, dry chemical, halon, or alcohol-resistant foam.

Extinguishing media which shall not be used for safety reasons
None

Special hazards arising from the substance or mixture
Thermal decomposition can lead to release of irritating gases and vapors, such as carbon monoxide gas.

Hazardous decomposition products
Thermal decomposition products may include but are not limited to oxides of carbon.

Advice for firefighters

Special protective equipment for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures
Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak.

Advice for non-emergency personnel Material can create slippery conditions

Advice for emergency responders For personal protection see section 8

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up
Soak up with inert absorbent material (e.g., sand, silica gel, acid binder, universal binder, sawdust). Dike to collect large liquid spills.

Reference to other sections
See Section 8/12/13 for additional information

7. HANDLING AND STORAGE

Precautions for Safe handling
Wear personal protective equipment. Avoid contact with skin, eyes, and clothing. Do not breathe mist/vapors/spray. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions
Keep containers tightly closed in a dry, cool, and well-ventilated place.

Recommended Shelf Life
No information available

Incompatible materials
Strong oxidizing agents, strong acids, strong bases, Acid anhydrides, Acid chlorides, Metals

Specific end uses

Specific use(s) Conversion of rust.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Ethylene glycol [107-21-1]	ACGIH (TLV-TWA): 25 ppm ACGIH (TLV-STEL): 50 ppm/10 mg/m^3 OSHA PEL (Vacated) Ceiling: 50 ppm/125 mg/m^3 California permissible exposure limits for chemical contaminants (Title 8, Article 107) – Ceiling: 100 mg/m3

Exposure controls

Engineering Controls Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye protection	Tightly fitting safety goggles
Skin and body protection	Wear protective gloves/clothing
Respiratory protection	For vapor concentrations use air purifying respirator with acid gas cartridge, or power air-supplied respirator with acid gas cartridge.
Hygiene measures	Wear personal protective equipment. Avoid contact with skin, eyes, and clothing. Remove and wash contaminated clothing before re-use. Do not eat, drink, or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	**Odor**	Mild odor
Appearance	White	**Odor threshold**	No information available

Property	Values	Remarks / • Method
pH	3.5 @ 75 °F	
Melting point/freezing point	32 °F	
Boiling point/boiling range	388 – 417 °F	
Flash point	211 °F	
Evaporation rate	Faster than n-Butyl acetate	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	> 1 (air = 1)	
Specific gravity	1.12 @ 76 °F	
Water solubility	Partial	
Solubility in other solvents	None	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other information

Volatiles by weight:	69 %
Volatiles by volume:	76 %

10. STABILITY AND REACTIVITY

Reactivity
None under normal use conditions

Chemical Stability
Stable under recommended storage conditions

Possibility of Hazardous Reactions
None under normal processing

Conditions to avoid
Avoid use in a confined area without proper ventilation. Avoid contact with oxidizers. Keep containers away from heat, flames, or open sources of ignition.

Incompatible materials
Strong oxidizing agents, strong acids, strong bases, Acid anhydrides, Acid chlorides, Metals

Hazardous Decomposition Products
Thermal decomposition products may include but are not limited to oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Irritating to eyes.
Irritation	Irritating to eyes
Inhalation	Based on available data, the classification criteria are not met
Eye contact	Irritating to eyes.

Skin contact Based on available data, the classification criteria are not met

Ingestion Based on available data, the classification criteria are not met.

Component Information

Chemical Name	LD50/Oral	LD50/Dermal	LC50/inhalation
Ethylene glycol	7712 mg/kg (rat)	= 9530 µL/kg (rabbit) = 10600 mg/kg (rat) > 3500 mg/kg (mice)	> 2.5 mg/l (rat - 6 h)

Information on toxicological effects

Symptoms Mild skin irritation. Moderately irritating to the eyes.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Mild skin irritation.

Serious eye damage/ eye irritation Irritating to eyes

Sensitization Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

Specific target organ toxicity - single exposure Based on available data, the classification criteria are not met.

Specific target organ toxicity - Repeated exposure May cause damage to organs through prolonged or repeated exposure.
Target organs – Kidney, Liver

Aspiration hazard Based on available data, the classification criteria are not met

Other Chronic Effects:
The toxicological properties have not been fully investigated.

12. ECOLOGICAL INFORMATION

Ecotoxicity
Do not empty into drains.

Chemical Name	Algae/Aquatic plants	Fish	Water Flea
Ethylene glycol	EC_{50}: 6500 – 13000 mg/l:96 h (Pseudokirchneriella subcapitata)	LC_{50}: 14 - 18 mg/l: 96h static (Oncorhynchus mykiss) LC_{50}: 27540 mg/l: 96h static (Lepomis macrochirus) LC_{50}: = 40761 mg/L, 96h static (Oncorhynchus mykiss) LC_{50}: 40000 - 60000 mg/L, 96h static (Pimephales promelas) LC_{50}: = 16000 mg/L, 96h static (Poecilia reticulata) LC_{50}: = 41000 mg/L, 96h (Oncorhynchus mykiss)	EC_{50}: = 46300 mg/L, 48h (Daphnia magna)

Persistence and degradability
Persistence is unlikely based on information available.

Bioaccumulation
No information available

Mobility
Will likely be mobile in the environment due to its water solubility.

Chemical Name	Log Pow
Ethylene glycol	-1.93

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal methods	Dispose in accordance with applicable regional, national, and local laws and regulations.
Contaminated packaging	Observe all label precautions until container is cleaned, reconditioned, or destroyed
RCRA number(s)	None.

14. TRANSPORT INFORMATION

DOT	Not Regulated
TDG	Not Regulated
IATA	Not Regulated
IMDG	Not Regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	No information available
EINECS/ELINCS	No information available
ENCS	No information available
IECSC	No information available
KECL	No information available
PICCS	No information available
AUSTRALIA (AICS)	No information available

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

TSCA Section 12(b) Export Notification
This product does not contain any chemicals which may require reporting under this regulation [Section 4 (40 CFR 799.5115)].

Sara 313
Section 313 of the Tittle III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains the following chemicals which are subject to the reporting requirements of the Act and Tittle 40 of the Code of Federal Regulations, Part 372:

- Ethylene glycol 107-21-1 (Threshold - 1.0%)

Sara 311/312

- Serious eye damage/eye irritation
- Specific target organ toxicity (single or repeated exposure)

CWA (Clean Water Act)
This product does not contain any chemicals that may be subject to regulation by Section 311 of the Clean Water Act and the Oil Pollution Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This product contains the following substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorized Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

- Ethylene glycol 107-21-1 (RQ: 500 lbs.)

HAPS (Hazardous Air Pollutants:
This product contains the following substances regulated as Hazardous Air Pollutants (HAPS) pursuant to the clean air act:

- Ethylene glycol 107-21-1

US State Regulations

SCAQMD Rule 1144
This product has not been tested for VOC content by the ASTM E-1868-10 method and is not approved for sale or distribution in the SCAQM District of California if the product is used as a metal forming, metal removal, metal treating, metal protection fluid or as a direct-contact lubricant.

California Proposition 65

This product may contain trace amounts of other chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

For more information, go to www.P65Warnings.ca.gov

U.S. State Right-to-know Regulations

Chemical Name	New Jersey	Pennsylvania
Ethylene glycol (107-21-1)	X	X

U.S. EPA Label Information
EPA Pesticide Registration Number: No applicable

16. OTHER INFORMATION

NFPA	**Health hazards** 2	**Flammability** 0	**Instability** 0	**Physical and Chemical Properties** -
HMIS	**Health hazards** 2*	**Flammability** 0	**Physical hazards** 0	**Personal Protection** -

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such product when used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet